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10/589,933	04/30/2007	Nobuo Tsukamoto	4777-70	2428
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EXAMINER				
BROWN, VERNAL U				
ART UNIT		PAPER NUMBER		
2612				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

rschneider@daypitney.com

kmcwha@daypitney.com

psorge@daypitney.com

Office Action Summary**Application No.**

10/589,933

Applicant(s)

TSUKAMOTO ET AL.

Examiner

VERNAL U. BROWN

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-28 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 18 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

The application of Tsukamoto Nobuo CDMA-RFID filed 4/30/2007 has been examined.
Claims 1-28 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9/1, 10/1, 11-19, 21, 23/19, 23/21, 28 are rejected under 35 U.S.C. 102(b) as being anticipated by MacLellan et al. US Patent 5940006.

Regarding claim 1, MacLellan et al. teaches an RF tag comprising:

A receiver for interrogator signal, which receive a signal from an interrogator (col. 3 lines 30-3);

A generator for synchronization signal, which generates synchronization signal based on the interrogator signal received by the receiver of the interrogator signal (col. 4 lines 8-12);

An acquirer for response information, which acquires response information based on the interrogator signal received by the receiver of the interrogator signal (col. 4 lines 11-35);

A spread-code modulator , which acquires spread code modulated response information by spread code modulating the response information acquired by the acquirer for response information and a transmitter which transmits a response signal , which includes the spread-code modulated response information as data area acquired by the spread code modulator based on

the synchronization signal generated by the generator for synchronization signal at random transmission interval (col. 13 lines 27-col. 14 line 15).

Regarding claim 9/1, 10/1, MacLellan et al. teaches the RF tag includes a storage for RFID identification and the response signal acquired by the acquirer include information from the RFID storage (col. 6 lines 45-65).

Regarding claims 11-12, and 28, MacLellan et al. teaches the signal configuring the header is a non-interferential signal because the spread code is decoded and interpreted by the interrogator (col. 13 lines 27-col. 14 line 15).

Regarding claim 13, 14, MacLellan et al. teaches an aggregation of a plurality of the RF tags (figure 1).

Regarding claim 15, MacLellan et al. teaches an identification code of the header is common among the aggregation of a plurality of RF tags (col. 8 lines 7-10).

Regarding claims 16-17, MacLellan et al. teaches the spread-codes used in the different tags are different from each other, in which the spread code is used in the spread code modulator of respective RF tags (col. 13 lines 1-5).

Regarding claim 18, MacLellan et al. teaches an interrogator, comprising:
an acquirer for interrogator signal, which acquires a interrogator signal (col. 4 lines 8-15);
a transmitter for interrogator signal, which transmits the interrogator signal acquired by the acquirer for interrogator signal (col. 3 lines 59-67);
an acquirer for synchronization signal, which acquires a synchronization signal correlated with said interrogator signal (col. 4 lines 11-50); and
a receiver for response signal, which receives a response signal from RF tag to the interrogator

signal transmitted from said transmitter for interrogator signal on the basis of the synchronization signal acquired by said acquirer for synchronization signal (col. 4 lines 1-7) .

Regarding claims 19, 21, 23/19, 23/21, MacLellan et al. teaches a measurer for response signal intensity, which measures intensity of the response signal received by said receiver for response signal (col. 14 lines 53-56); a selector, which selects the response signal having a predetermined response signal intensity measured by said measurer for response signal intensity and a first decoder which decodes the response signal selected by the selector (col. 14 lines 48-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 7/1, 7/2, 8, 9/2, 10/2, 13/2 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacLellan et al. US Patent 5940006 in view of Belcher et al. US Patent 5920287.

Regarding claims 2-3, MacLellan et al. is silent on teaching transmitting the response signal at random transmission interval. Belcher et al. in an analogous art teaches a RF tag transmitting the response signal at random transmission interval and teaches a stopper which stops transmissions by said repeated transmission means (col. 4 lines 40-54).

It would have been obvious to one of ordinary skill in the art to modify the system of MacLellan et al. as disclosed by Belcher et al. because transmitting the response signal at random transmission intervals allows the interrogator to be updated with status of the RFID tag device.

Regarding claim 7/1, 7/2, and 8, MacLellan et al. is silent on teaching the random transmission interval is a random transmission interval based on a predetermined rule. Belcher et al. in an analogous art teaches a RF tag transmitting the response signal at random transmission interval and the random transmission interval is based upon a predetermined rule of the random pulse generator (col. 6 lines 45-55).

It would have been obvious to one of ordinary skill in the art to modify the system of MacLellan et al. as disclosed by Belcher et al. because transmitting the response signal at random transmission intervals allows the interrogator to be updated with status of the RFID tag device.

Regarding claim 9/2, 10/2, MacLellan et al. teaches the RF tag includes a storage for RFID identification and the response signal acquired by the acquirer include information from the RFID storage (col. 6 lines 45-65).

Regarding claim 13/2, MacLellan et al. teaches an aggregation of a plurality of the RF tags (figure 1).

Claims 4, 5/4, 5/3, 6/3, 6/4, 7/3, 7/4, 9/3, 9/4, 10/3, 10/4, 13/3, 13/4 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacLellan et al. US Patent 5940006 in view of Belcher et al. US Patent 5920287 and further in view of Maletsky US Patent 6104279.

Regarding claim 4,5/4, 5/3, MacLellan et al. teaches the interrogator transmitting command to the RFID tag device but is silent on teaching the interrogator transmits a stop command to the RFID tag to stop the repeated transmission. Maletsky in an analogous art teaches an interrogator transmitting a stop command to the RFID tag for the RFID tag to stop transmission of its response signal (col. 3 lines 21-30).

It would have been obvious to one of ordinary skill in the art to modify the system of MacLellan et al. in view of Belcher et al. as disclosed by Maletsky because transmitting a stop command to the RFID tag improves the system by preventing data collision due to multiples RFID tags transmitting at the same time.

Regarding claim 6/3, 6/4, the examiner consider the an acquisition means for proof information which acquires proof information corresponding to the response signal transmitted from the transmitter as the means provided by the RFID tag as disclosed by Maletsky for interpreting the command received from the interrogator (col. 5 lines 2-25). It is also the examiner's position that the proof dependent stopping means stop transmission only when the proof information acquired by the acquisition means for proof information fulfilled a predetermined condition by enduring the received command is a stop command (col. 3 lines 21-30).

It would have been obvious to one of ordinary skill in the art to modify the system of MacLellan et al. in view of Belcher et al. as disclosed by Maletsky because a control means such as a processor is generally used by a RFID tag to interpret and execute the command received by a RFID tag.

Regarding claim 7/3, 7/4, MacLellan et al. is silent on teaching the random transmission interval is a random transmission interval based on a predetermined rule. Belcher et al. in an analogous art teaches a RF tag transmitting the response signal at random transmission interval and the random transmission interval is based upon a predetermined rule of the random pulse generator (col. 6 lines 45-55).

It would have been obvious to one of ordinary skill in the art to modify the system of MacLellan et al. as disclosed by Belcher et al. because transmitting the response signal at random transmission intervals allows the interrogator to be updated with status of the RFID tag device.

Regarding claim 9/3, 9/4, 10/3, 10/4, MacLellan et al. teaches the RF tag includes a storage for RFID identification and the response signal acquired by the acquirer include information from the RFID storage (col. 6 lines 45-65).

Regarding claim 13/3, 13/4, MacLellan et al. teaches an aggregation of a plurality of the RF tags (figure 1).

Claims 20, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacLellan et al. US Patent 5940006 in view of Maletsky US Patent 6104279.

Regarding claim 20 and 22, MacLellan et al. teaches the RF tag includes a storage for RFID identification and the response signal acquired by the acquirer include information from the RFID storage (col. 6 lines 45-65) but is silent on teaching the interrogator transmits a stop command to the RFID tag to stop the repeated transmission. Maletsky in an analogous art teaches an interrogator transmitting a stop command to the RFID tag for the RFID tag to stop transmission of its response signal (col. 3 lines 21-30).

It would have been obvious to one of ordinary skill in the art to modify the system of MacLellan et al. in view of Belcher et al. as disclosed by Maletsky because transmitting a stop command to the RFID tag improves the system by preventing data collision due to multiples RFID tags transmitting at the same time.

Claims 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacLellan et al. US Patent 5940006 in view of Tanaka et al. US Patent 20030033097.

Regarding claims 24-27, MacLellan et al. is silent on teaching the measurer for signal intensity comprises a storage means for time constant measurement, which stores the measurement time constant for setting measurement time measuring response signal intensity. Tanaka et al. in an analogous art teaches the signal time constant is used in determining the signal intensity (paragraph 052).

The signal time constant is conventionally used in performing the integration to determine the signal intensity, therefore it would have been obvious for the measuring means to have a storage means for time constant in order to provide the appropriate time set to the measurer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VERNAL U. BROWN whose telephone number is (571)272-3060. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vernal U Brown/
Primary Examiner, Art Unit 2612